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ABSTRACT

Scores on standardized tests and high school grade point average are not always good predictors of the academic ability or potential success of students choosing to become teachers. An issue often overlooked when sampling the academic qualifications is the identification of students who are not education majors but who plan on becoming teachers. Most of the research studies compare students who are education majors with those who major in other academic areas of study. This sampling overlooks the fact that many of the students who are interested in secondary school teaching actually major in fields other than education and take education courses as a means of obtaining certification. Reports about the academic qualifications of teachers which are based only on those enrolled as education majors in education are missing an important segment of the population of future teachers. There is a need for more data in making policy decisions designed to have an impact on those choosing education as a career. (JD)

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WHO ARE THE TEACHER EDUCATION STUDENTS?

Tom V. Savage

THE PROBLEM

The quality of students entering teacher education programs has long been a concern. Recent reform movements have focused new attention on the problem while implying that the quality of individuals entering teacher education programs has experienced a marked decline. Weaver (1979) highlighted this concern and claimed that this "brain drain" was one of the most serious issues confronting teacher education. The implications seem clear, education is not attracting academic talent and something must be done to correct the situation.

What are the characteristics of those choosing teaching as a career? Has there been a decline in the quality of those choosing teaching? While assertions are many, studies investigating this issue are few. The intent of this paper will be to review those studies that have addressed these questions and identify issues and research needs for future study.

MEASURES OF ACADEMIC ABILITY

One of the major issues related to the answer of these questions centers on the identification of appropriate measures of academic quality. The measure that has been used most often is the Scholastic Aptitude Test (SAT). Most studies report SAT scores for students entering teacher education programs and compare them with students entering other academic disciplines. However, the predictive validity of the SAT has been questioned (Trusheim & Crouse, 1982). On the other hand, Vance and Schlecty (1982) defended their use of SAT scores on the grounds that SAT scores are politically significant. Their assertion is that the SAT score is an indicator that is understood by the public and cannot be ignored. Weaver (1979) reinforces this argument by stating that an empirically verified relationship between measures such as the SAT and teaching ability is immaterial. His argument is that it is a reasonable requirement to expect teachers to be literate. His assumption seems to be that the SAT is a valid measure of literacy. However, this assumption has not gone unchallenged.

Bejar and Blew (1981) reported low correlations between the two SAT subscores and freshman grades. The correlation with the verbal portion was determined to be only .31 for males and .38 for females. While the correlations with the math portion was somewhat higher, .35 for males and .41 for females, neither set of correlations is high enough to engender a high degree of confidence in the test as a measure of academic ability. The question then, is whether conclusions concerning the qualifications of those entering education ought to continue to be based on measures that have gained popular acceptance but seem to have questionable validity? If real improvement is desired rather than the illusion of improvement, it would seem desirable to identify

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indicators that do have validity in terms of basic literacy as well as some relationship to teaching performance.

Another potential indicator of academic ability is the high school grade point average. College admission officers report that high school grades appear to be the best predictor of success in college. Trusheim and Crouse (1982) used a sample drawn from the National Longitudinal Study for the class of 1972 to investigate the predictive validity of the SAT and high school grades. They reported the SAT added virtually no information to high school grades in predicting either freshman grades or the eventual attainment of a college degree. Bejar and Blew (1981) reported higher correlations for high school grades than SAT scores with freshman grades. These data suggest that high school grades are at least as important, if not more so, as an indicator of academic ability than SAT scores. Perhaps this is because high school grades are indicators of study habits, task persistence and motivation, characteristics that are important in college success but not measured by the SAT.

SAMPLING THE POPULATION

Another issue related to the identification of characteristics of those entering teaching relates to the point at which the population is sampled. Some conclusions regarding the academic characteristics of those choosing education as a career are based on the SAT scores of high school seniors who report that they plan on pursuing teaching as a career (Weaver, 1979). However, Lyson and Falk (1984) reported that 75% of the students surveyed in the National Longitudinal Study of 1972 who planned on becoming teachers had not done so by 1979. Most of the individuals who had actually entered teaching had originally reported an interest in another professional field.

An analysis of data by the Texas A&M Measurement and Research Office further illustrates the issue. These data revealed that over a two year period only 43% of the 715 who received degrees in education were initially enrolled as majors in education. Obviously, there is a great deal of movement from one major area to another during the college years.

At what point can students be sampled in order to determine the characteristics of those entering education? It seems apparent that conclusions based on the stated preferences of high school seniors or even those of college freshmen are of questionable value. Data must be gathered closer to the time when an individual actually enters teaching. An issue often overlooked when sampling the academic qualifications is the identification of students who are not education majors yet who plan on becoming teachers. Most of the studies compare students who are education majors with those who major in other academic areas of study. This sampling overlooks the fact that many of the students who are interested in secondary teaching actually major in fields other than education and take education courses as a means of obtaining certification. Therefore, reports on the academic qualifications of teachers which report conclusions based only on those enrolled as majors in education are missing an important segment of the population of future teachers. Unfortunately, this point is often overlooked in reports on the quality of those entering teaching. Those choosing to teach a particular

subject in the secondary school may or may not differ from others majoring in that same subject. Merely comparing majors does not reveal this information. Perhaps an analysis of those who student teach or those who apply for certification would provide more meaningful data.

REVIEW OF RESEARCH

What is known about the characteristics of those entering teaching? Several studies have addressed this issue. Most have relied on the SAT as an indicator of quality and have compared those entering education with those entering other disciplines. Therefore, the issues addressed above should be kept in mind when reviewing this research.

Several researchers have used the population of the National Longitudinal Study (NLS) as a basis for their research. While these data are useful, it must be remembered that this data set is based on the high school class of 1972. Drawing conclusions concerning the characteristics of students currently entering education based on a data set gathered over a decade ago is of limited value.

One of the first to use the NLS data was Weaver (1979). He compared those graduating with degrees in education with those obtaining degrees in other subjects. In a ranking of sixteen subject areas by SAT averages, those graduating in education placed fourteenth. He concluded in this study that education was attracting academically inferior students and was less selective in screening students during their college program than other disciplines.

Further, Weaver examined the placement of those who were able to obtain employment as teachers. He found no correlation between those who were eventually employed as teachers and their SAT scores. Considering the lack of predictive validity of the SAT it would be surprising if the SAT were a predictor of employment. Rather, this finding supports the argument that the SAT is of limited value in determining the quality of future teachers.

Vance and Schlecty (1982) mined the NLS data for the SAT of graduating college seniors and those who actually taught between the years 1976 and 1979. They divided the population of graduating seniors into five ranks according to SAT scores. They reported that fewer education graduates were from the top rank and more were from the bottom rank than for the seniors who did not major in education. They, like Weaver, reported that the hiring process did not favor those with higher SAT scores. Furthermore, they reported that fewer of those drawn from the higher SAT ranks actually taught or intended to continue teaching until age thirty. Their conclusion was that those with high academic ability were more likely to leave teaching than those with low academic ability. While some concern may be warranted, basing this conclusion entirely on SAT scores appears to be a case of extrapolating beyond the data.

Lyson and Falk (1984) also used the NLS data in their study and found that about half of the individuals teaching in 1979 did not report teaching as an interest in 1972. As cited earlier, they also found that 75% of those who had stated an intent to teach were not doing so seven years later. They concluded statements of expectations by high school seniors are not reliable indicators of future occupational attainment.

In addition, Lyson and Falk analyzed those who defected from teaching as a career choice and those who switched to teaching from another professional career category. They discovered that over 50 percent of those who stated an intention to teach were not employed in a professional or managerial position. They hypothesized that teaching might be identified as a career choice by many high school seniors of limited academic ability because they were unaware of the difficulty in completing a teacher education program. This hypothesis runs counter to the Weaver inference that teacher education programs lack selectivity. Lyson and Falk contend that completion of a teacher education program is not as easy as some critics suggest and is indeed, screening out those with limited academic ability.

Gallegos and Gibson (1982) used a different approach in attempting to assess the quality of teaching candidates. They compared the high school grade point average, lower division college grade point average and college graduation grade point average of students graduating with degrees in education separated by a decade. Their intent was to determine whether or not there had been a decline in the quality of those choosing education as a major. They selected 150 education graduates from the classes of 1979, 1980, and 1981 and compared them with 149 education graduates from the classes of 1969, 1970, and 1971. After controlling for grade inflation, Gallegos and Gibson found a significant difference between the two groups in favor of the most recent graduates. Their conclusion is exactly the opposite of that claimed in much of the recent literature. They concluded, at least for the university they studied, that the academic qualifications of those choosing education as a major had actually improved in the last decade.

Savage (1983) limited his investigation of those entering teacher education programs to women who were choosing education as a university major. The purpose of the study was to investigate the impact of increased opportunities for women on the quality of women entering teacher education. This study, like several others, used the SAT score as one measure of academic qualifications. However, high school class standing was added as another indicator of academic ability. The study was a longitudinal study that investigated the characteristics of women choosing to major in seven selected areas of study at the beginning of each of the four undergraduate years. The SAT scores and high school class standing were averaged for all women enrolled in each of the seven areas of study at the beginning of the freshman, sophomore, junior and senior years. Since the same group of women were followed for the four years in question, this procedure identified shifting patterns in the population that could be attributed to transfers and drop-outs.

Throughout the four year period women choosing education as a major ranked sixth of the seven areas in terms of SAT averages. The greatest difference between the women choosing education as a major and those choosing other majors was on the math component of the SAT. There was a 105 point difference between women choosing education and women choosing engineering as majors.

The patterns presented by the shifting population was of interest. At the beginning of the junior year the SAT averages for women majoring in education jumped by 22 points. The only majors that had a greater increase than 22 points over the entering freshman averages were in engineering and science. However, in the intervening two years the attrition of women in these two majors was quite high. Science dropped from

413 women in the freshman year to 108 in the junior year. Engineering dropped from a high of 225 in the freshman year to 168 in the junior year. No doubt some of this attrition was due to a screening out of those who did not have the aptitude for the subject.

Education majors decreased by only four students between the freshman and junior years. While an initial impression might be that this indicates that teacher education is not selective, this would not be accurate. Further analysis of the data reveals that there was, in fact, a drop of 35 women from the freshman to sophomore years. There was then an increase of 31 women from the sophomore to the junior years. There was considerable change in the population of students majoring in education from the sophomore to the junior years. The fact that SAT scores and the high school class standings increased by the junior year indicate that a number of women with low SAT scores and high school class standing were dropping out of the program and were being replaced by students with higher scores. This observation lends additional support to the Lyson and Falk hypothesis that high school students choosing education as a major were unaware of the difficulties involved in completing education requirements. Furthermore, this observation casts doubt on the oft stated assertion that academically talented students drop education because of the lack of intellectual challenge. Rather, the opposite appears to be the case. Students with higher academic qualifications are attracted to education.

A second quality indicator, that of high school grades, was investigated by Savage. High school class ranking was averaged for all of the women in each of the areas of study and was recalculated for the population of women in each of the four college years. At the freshman year education as a major tied for last place in a comparison of the seven majors. However, similar to SAT score trends, the average high school class rank of those in education at the junior year increased. The increase in average high school class rank was twice that of any other major and placed education in the middle of the distribution of the seven areas studied. These findings lend support to the hypothesis that women with higher academic qualifications were transferring into education at the conclusion of the sophomore year. Given the evidence of higher predictive validity for high school grades, this increase in average high school class rank would appear to be an item of major importance when drawing conclusions about the quality of women choosing education as a major. Lyson and Falk (1984) developed a profile of those who were most likely to enter teaching. They noted that white women who did well in high school were candidates most likely to enter teaching. These observations would seem to be of major importance in any analysis of the characteristics of students entering teaching.

In an attempt to discover reasons for the shift of women with high indicators of academic qualifications into education, a number of interviews were conducted with women who transferred into education. The reason most often cited by those making the change was a clarification of career choices. Many stated that they had been encouraged by parents and counselors to pursue a career other than education. However, after a year or two in another area they decided that they really wanted to become a teacher. The comment of one woman was revealing. She reported that her high school counselor had said, "You are a bright girl, be something, don't be a teacher."

CONCLUSIONS

What conclusions can be drawn concerning the quality of individuals choosing education as a career? Any conclusions that are drawn must be tempered with a consideration of the limitations of the data presented. There is some indication that education is not attracting the highest quality student. However, it is unlikely that education has ever attracted the top student. The Gallegos and Gibson study indicates that the quality of students choosing education might have actually improved, rather than declined in recent years. The Savage study gives credence to the concern that academically talented women may now be choosing majors other than education. There is cause for concern concerning the quality of students entering teaching. Programs designed to improve the quality of education must address ways of attracting talented students into education. However, the situation does not appear to be as bleak as popular reports indicate. Education is attracting many students of high academic quality. It is important this fact be emphasized. The public impression seems to have been created that all students entering education are of inferior academic quality.

It is evident that there is much needed research in this area. One of the first tasks that needs to be addressed is the identification of adequate indicators of quality. Those that are receiving popular attention appear to be woefully inadequate. The reliance on SAT scores must be replaced with more valid indicators. The data would suggest that grades should receive more attention. Perhaps some of the recent competency tests will prove to be indicators of value.

It is obvious that a great deal of research is needed in this crucial area. Policy decisions of considerable importance are being made. In order to bring about the improvement that is desired, these decisions need to be made on the basis of empirically derived generalizations, not unfounded assumptions.

REFERENCES

- Bejar, I. I. & Blew, E. O., (1981). Grade inflators and the validity of the scholastic aptitude test. *American Educational Research Journal*, 18, 143-156.
- Gallegos, A.M. & Gibson, H., (1982). Are we sure the quality of teacher candidates is declining? *Phi Delta Kappan*, 64, 33.
- Lyson, T. A. & Falk, W.W. (1984). Recruitment to school teaching: the relationship between high school plans and early adult attainments. *American Educational Research Journal*, 21, 181-193.
- Savage, T. V. (1983). The academic qualifications of women choosing education as a major. *Journal of Teacher Education*, 34, 14-19.
- Trusheim, D. and Crouse, J. (1982). The ETS admission formula: does the SAT add useful information? *Phi Delta Kappan*, 64, 59-61.
- Vance, V. S. & Schlecty, P. C. (1982). The distribution of academic ability in the teaching force: policy implications. *Phi Delta Kappan*, 64, 22-27.
- Weaver, W. T. (1979). In search of quality: the need for talent in teaching. *Phi Delta Kappan*, 61, 20-32, 46.